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FILING DATE: April 12, 2004

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PROVISIONAL APPLICATION FOR PATENT COVER SHEET This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

16800 U.S. PTO
60/561351

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INVENTOR(S)					
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<input checked="" type="checkbox"/> Additional inventors are being named on the _____ separately numbered sheets attached hereto					
TITLE OF THE INVENTION (280 characters max)					
DIFFERENTIAL CODING WITH EXP-GOLOMB METHOD FOR CODING Q-MATRIX					
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ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification Number of Pages <u>2</u>		<input type="checkbox"/> CD(s), Number <u> </u>			
<input checked="" type="checkbox"/> Drawing(s) Number of Sheets <u>1</u>		<input checked="" type="checkbox"/> Other (specify) <u>Attachment - pages 1-4</u> <u>Attachment - pages 1-94</u>			
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Respectfully submitted,

SIGNATURE

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Date **4/12/04**

REGISTRATION NO.

(if appropriate)

Docket Number:

25,124

17366-3350

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	Docket Number	17366-3350	Type a plus sign (+) inside this box →	+
INVENTOR(S)/APPLICANT(S)				
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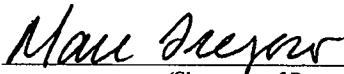
CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10) Applicant(s):			Docket No. 17366-3350
Serial No. TBD	Filing Date Herewith	Examiner	Group Art Unit

Invention:

DIFFERENTIAL CODING WITH EXP-GOLOMB METHOD FOR CODING Q-MATRIX

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DIFFERENTIAL CODING WITH EXP-GOLOMB METHOD FOR CODING Q-MATRIX

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention is directed to enabling quantization of matrices to be carried out and represented in a video coding system that contains intra-prediction and more particularly creating a series of cyclic difference values suitable for signed Exp-Golomb codes.

DESCRIPTION OF RELATED ART

The prior art is aware of quantization matrix for video coding and the applicability of Exp-Golomb codes. Video code has also been represented in hierarchical syntactic structure with associated semantics and has used both lossy and non-lossy or Variable Length Coding in video compression. Transform domain quantization has also been known and used.

SUMMARY OF THE INVENTION

The present invention describes a method and program for representing, carrying and enabling video compression by using quantization weighting matrices and addresses the following features:

1. Enable quantization matrices to be carried and represented in a video coding system that contains intra-prediction.
2. Define and carry quantization weighting matrices that can be implemented by integer based and division free computation.
3. Enable quantization matrices to be encoded in an efficient Cyclic Differential code and Exp-Golomb code.
4. Support quantization matrix representation that allows redundant weighting values to be derived at decoder side rather than being carried over communication transport data.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows an example mapping of two-dimensional matrix entries into a one-dimensional series according to an embodiment of the present invention.

BRIEF DESCRIPTION OF PREFERRED EMBODIMENT

See attached pages 1-4.